Result Page

The present invention concerns a combination from active substances to the deceleration of the aging process, the use of the combination to the producing of a drug and in particular the use of the combination to the preparing of a drug to the deceleration of the aging process and/or for prevention from aging-determined illnesses.

The well-being being issued of living cells and organisms depends on the maintenance of different homöostatischer automatic control loops. Is from vital importance the integrated calcium energy redox household. This regulates the power production, whereby calcium serves as Mediator between need and consumption and steers thus the dynamic equilibrium. A disturbance of this balance can lead to oxidative stress and to auto+catalytic degeneration procedures.

In the age it comes to an increasing inability to adjust the homöostatischen equilibrium. Causally responsible for it a gradual insufficiency of the neuroendokrinoimmunologischen system, mediated by a decrease of hormones and growth factors, is which support and optimize the maintenance of the automatic control loops. On the other hand developed itself an increasing activity of hormoneal systems, which destabilize the automatic control loops. Altogether it comes by it to a loss of the balance of protecting and endangering agents, with the consequence of an increasing cellular metabolic stress. This metabolic stress leads to a decrease of the reserve capacity and increasing Vulnerabilität opposite Stressoren, to a restriction of the function and finally the integrity of cells and organ systems and to the known old-specific increase of morbidity and mortality.

In the past was tried occasionally to order to progressing the aging process by gift of single hormones stop. So the positive effect of pharmakologischen or physiological boxes of Melatonin in laboratory animals (Pierpaoli RK aluminium, Exp Gerontol 32 could: 587, 1997; Et al. must., Endocrinology 140: 1009, 1999) and DHEA (Khorram et al., J Gerontol 52: M1, 1997; Morales et al., Clin Endocrinol 49: 421, 1998) on partial aspects of aging documented becomes. Opposite no unique life-extending effects could be proven with laboratory animals with physiological boxes (Izmaylov et al. ; Mechanical Ageing Dev 106: 233, 1999; Miller and Crisp, J. To. Gemat. Soc 47: 960, 1999; Pugh et al., CAN cerium Res. 59: 1642, 1999).

It is object of the present invention to indicate a pharmaceutical effective combination which can be used a deceleration of the aging process with the human beings and with higher mammals effected and for prevention by aging-determined illnesses.

A getistic approach shows that nature has a variety itself mutual more feeding back and parallel running off synergistic and antagonistic processes developed. The aging process is more stochastic no, but an evolutionary intended event, in which a set of tuned Einzelprozessen causes purposefully a dying of the organism. Therefore punctual interventions cannot be into the network in the situation to slow the aging process down lastingly. Rather can be assumed after blockade of a single process evasion cycles adaptive strengthen and prevention runs in emptiness. For the example the Cortisol plasma mirror rises on with old females after gift of Melatonin (Cagnacci et al., J Pineal Res 22: 81, 1997). Therefore the increase of the metabolic stress can be retarded only by gift of a mixture of different hormones, growth factors and protektiver substances, which affect synergistically several processes. Possible ingredients of this mixture are: Neuropeptide Y (NPY), DHEA, sex hormones, Melatonin, thyroid hormones, insulin or insulin like growth factors (IGF), Neurotrophine, somatostatin, Substance P, Glucocorticoid (office) - Synthesehemmer as well as Antioxidantien and Antiphlogistika. The selection of the ingredients depends on the one hand on the convenience of the receipt - the gift of Peptidhormonen (NPY, insulin, Neurotrophine, somatostatin, Substance P) is corresponding, which parenterally to take place would have, as Prophylaktikum not meaningfully. On the other hand the position of the single substances is in the hormoneal network of importance, D. h. the possibility of affecting with a single material several converging processes. Some old-specific changes of hormones can become therefore by other agendas synergistically affected. Thus DHEA and Melatonin of the insulin resistance work against (Kimura et al., Endocrinology 139: 3249, 1998; Mukasa et al., J steroid Biochem mol of Biol 67: 355, 1998; Et al. must., Endocrinology 140: 1009, 1999). DHEA and Melatonin have also anti-office activity. Since office can be causal involved to the Neurotrophin and the Somatostatin decrease, can with DHEA and Melatonin also eventual changes of the Neurotrophin and Somatostatin effects favorable affected become. In addition DHEA is converted into androgens. The immune system as integral ingredient of the homöostatischen network is involved at the functional fall by secretion of acute phase proteins. Composition lowdosed nichtsteroidaler Antiphlogistika, z. B. Or Indomethacin, these inflammatorischen processes can acetylsalicylic acid be prevented lastingly. The age-dependent metabolic stress is with oxidative stress linked, that by vitamin E and/or. N- Acetylcysteine to be dammed can. With postmenopausalen females Östrogene complete as well as with older ones with constrained function that hypothalamisch hypophysären thyroidalen axis supplemented thyroxin the inventive mixture.

The o. g. Object becomes dissolved, which of Melatonin, by a combination of active substances, Dehydroepiandrosteron and at least a nichtsteroidales Antiphlogistikum contains.

The combination contains additionally vitamin E and/or N-acetylcysteine favourably. The inventive combination is composed favourably as follows:

a) 0.5-5 parts by weight Melatonin
b) 15-150 parts by weight Dehydroepiandrosteron
c) 30-250 of weight = parts of a nichtsteroidalen Antiphlogistikums and
d) 0-400 parts by weight vitamin E and/or N-acetylcysteine

The inventive combination contains particularly favourably

a) 0,8-1, 2 parts by weight Melatonin,
b) 25-75 parts by weight Dehydroepiandrosteron,
& top
c) 150-250 parts by weight vitamin E or N-acetylcysteine and
d) 30-70 parts by weight of a nichtsteroidalen Antiphlogistikums.

In a further favourable embodiment the inventive combination contains thyroxin of additionally 0.025-0.15 parts by weight. Thereby the thyroid status can become positively affected.

In a further favourable embodiment the combination contains Östrogene of additionally 0.3-2 parts by weight. The content of Östrogenen has favourable effect with the application of the inventive combination by postmenopausale females.

As nichtsteroidales Antiphlogistikum the inventive composition contains of acetylsalicylic acid and/or indomethacin favourably.

The invention relates to also the use of the combination to the producing of a drug, in particular to the producing of a drug to the deceleration of the aging process and for prevention of aging-determined illnesses. Opposite the effect of the single components the inventive combination shows surprisingly a synergistic effect.

The inventive combination can be converted under use of usual carrier and auxiliary materials to tablets. In addition, it can become using physiologically harmless solvents as a solution provided. In order to achieve as large a flexibility as possible regarding the dosage of the single components, these can become also in form of a kit provided, become its components the application combined. In this case the ingredients of the combination are thus present spatial separate. They can become at the same time or temporally staggered applied.

An effective daily dose of the inventive combination contains:
0.5-5 mg Melatonin,
15-150 mg Dehydroepiandrosteron,
30-250 mg of a nichtsteroidalen Antiphlogistikums and
0-400 mg vitamin E or N-acetylcysteine.

This daily dose can through
25-150 mu g and/or 0.3-2 mg Östrogene supplemented become.

In the following the invention becomes more near explained on the basis an embodiment:

Example 1

The ingredients of the inventive combination were converted cellulose and talcum powder under use of Polysorbat, Glycerol, Sorbitol, as carrier and auxiliary materials in known manner to tablets, which contained 1 mg Melatonin, 25 mg DHEA, 100 mg vitamin E and 50 mg acetylsalicylic acid per tablet.

Example 2

In same way as in example 1 tablets prepared, which contained 0.5 mg Östrogene additionally to the contents materials specified there, became.

Example 3

In same way as in example 1 tablets prepared, which contained 100 mu g thyroxin additionally to the contents materials specified there, became.